

APPENDIX I DEFINITIONS

BEST TRACK - A subjectively smoothed path, versus a precise and very erratic fix-to-fix path, used to represent tropical cyclone movement.

CENTER - The vertical axis or core of a tropical cyclone. Usually determined by cloud vorticity patterns, wind and/or pressure distribution.

EPHEMERIS - Position of a body (satellite) in space as a function of time; used for gridding satellite imagery. Since ephemeris gridding is based solely on the predicted position of the satellite, it is susceptible to errors from vehicle wobble, orbital eccentricity and the oblateness of the Earth.

EXPLOSIVE DEEPENING - A decrease in the minimum sea-level pressure of a tropical cyclone of 2.5 mb/hr for 12 hours or 5.0 mb/hr for six hours (Holliday and Thompson, 1979).

EXTRATROPICAL - A term used in warnings and tropical summaries to indicate that a cyclone has lost its "tropical" characteristics. The term implies both poleward displacement from the tropics and the conversion of the cyclone's primary energy source from the release of latent heat of condensation to baroclinic processes. It is important to note that cyclones can become extratropical and still maintain winds of typhoon or storm force.

EYE - The central area of a tropical cyclone when it is more than half surrounded by wall cloud.

FUJIWHARA EFFECT - A binary interaction where tropical cyclones within about 750 nm (1389 km) of each other begin to rotate about one another. When tropical cyclones are within about 400 nm (741 km) of each other, they may also begin to be drawn closer to one another (Brand, 1970) (Dong and Neumann, 1983).

INTENSITY - The maximum sustained surface wind speed, typically within one degree of the center of a tropical cyclone.

MAXIMUM SUSTAINED WIND - The highest surface wind speed averaged over a one-minute period of time. (Peak gusts over water average 20 to 25 percent higher than sustained winds.)

RAPID DEEPENING - A decrease in the minimum sea-level pressure of a tropical cyclone of 1.25 mb/hr for 24-hours (Holliday and Thompson, 1979).

RECURVATURE - The turning of a tropical cyclone from an initial path toward the west and poleward to east and poleward.

SIGNIFICANT TROPICAL CYCLONE - A tropical cyclone becomes "significant" with the issuance of the first numbered warning by the responsible warning agency.

SIZE - The areal extent of a tropical cyclone, usually measured radially outward from the center to the outermost closed isobar.

STRENGTH - The average wind speed of the surrounding low-level wind flow, usually measured within one to three degrees of the center of a tropical cyclone.

SUBTROPICAL CYCLONE - a low pressure system that forms over the ocean in the subtropics and has some characteristics of a tropical circulation, but not a central dense overcast. Although of upper cold low or low-level baroclinic origins, the system can transition to a tropical cyclone.

SUPER TYPHOON - A typhoon with maximum sustained surface winds of 130 kt (67 m/sec) or greater.

TROPICAL CYCLONE - A non-frontal, migratory low-pressure system, usually of synoptic scale, originating over tropical or subtropical waters and having a definite organized circulation.

TROPICAL DEPRESSION - A tropical cyclone with maximum sustained surface winds of 33 kt (17 m/sec) or less.

TROPICAL DISTURBANCE - A discrete system of apparently organized convection, generally 100 to 300 nm (185 to 556 km) in diameter, originating in the tropics or subtropics, having a non-frontal, migratory character and having maintained its identity for 12- to 24-hours. It may or may not be associated with a detectable perturbation of the wind field. It is the basic generic designation which, in successive stages of development, may be classified as a Tropical Depression, Tropical Storm, Typhoon or Super Typhoon.

TROPICAL STORM - A tropical cyclone with maximum sustained surface winds in the range of 34 to 63 kt (17 to 32 m/sec) inclusive.

TROPICAL UPPER-TROPOSPHERIC TROUGH (TUTT) - A dominant climatological system and a daily upper-level synoptic feature of the summer season, over the tropical North Atlantic, North Pacific and South Pacific Oceans (Sadler, 1979).

TYPHOON (HURRICANE) - A tropical cyclone with maximum sustained surface winds of 64 to 129 kt (33 to 66 m/sec). West of 180 degrees longitude they are called typhoons and east of 180 degrees longitude hurricanes.

WALL CLOUD - An organized band of cumuliform clouds that immediately surrounds the central area of a tropical cyclone. The wall cloud may entirely enclose or partially surround the center.

APPENDIX II

NAMES FOR TROPICAL CYCLONES

| Column 1 | Column 2 | Column 3 | Column 4 |
|----------|----------|----------|----------|
| ANDY | ABBY | ALEX | AGNES |
| BRENDA | BEN | BETTY | BILL |
| CECIL | CARMEN | CARY | CLARA |
| DOT | DOM | DINAH | DOYLE |
| ELLIS | ELLEN | ED | ELSIE |
| FAYE | FORREST | FREDA | FABIAN |
| GORDON | GEORGIA | GERALD | GAY |
| HOPE | HERBERT | HOLLY | HAL |
| IRVING | IDA | IAN | IRMA |
| JUDY | JOE | JUNE | JEFF |
| KEN | KIM | KELLY | KIT |
| LOLA | LEX | LYNN | LEE |
| MAC | MARGE | MAURY | MAMIE |
| NANCY | NORRIS | NINA | NELSON |
| OWEN | ORCHID | OGDEN | ODESSA |
| PEGGY | PERCY | PHYLLIS | PAT |
| ROGER | RUTH | ROY | RUBY |
| SARAH | SPERRY | SUSAN | SKIP |
| TIP | THELMA | THAD | TESS |
| VERA | VERNON | VANESSA | VAL |
| WAYNE | WYNNE | WARREN | WINONA |

NOTE: Names are assigned in rotation and alphabetically. When the last name in Column 4 (WINONA) has been used, the sequence will begin again with the first name in Column 1 (ANDY).

SOURCE: CINCPACINST 3140.1S

APPENDIX III

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APPENDIX IV

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TYPHOON ANALOG MODEL
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